3. Write the multiplication sentence modelled by each set of algebra tiles.

a) 

b)

c)

d) 

5. a) Which of these products is modelled by the algebra tiles below?

i) $2(-2n^2 + 3n + 4)$

ii) $2(2n^2 - 3n + 4)$

iii) $-2(2n^2 - 3n + 4)$

7. a) Multiply.

i) $3(5r)$ ii) $-3(5r)$

iii) $(5r)(3)$ iv) $-5(3r)$

v) $-5(-3r)$ vi) $(-3r)(5)$

b) In part a, explain why some answers are the same.

c) For which products in part a could you have used algebra tiles? For each product, sketch the tiles you could use.

11. Use algebra tiles to determine each product. Sketch the tiles you used. Record the product symbolically.

a) $7(3s + 1)$

b) $-2(-7h + 4)$

c) $2(-3p^2 - 2p + 1)$

d) $-6(2v^2 - v + 5)$

e) $(-w^2 + 3w - 5)(3)$

f) $(x^2 + x)(-5)$

12. Here is a student's solution for this question:

$-2(4v^2 - v + 7) = -2(4v^2) - 2(v) - 2(7)$

$= -8v^2 - 2v - 16$

Identify the errors in the solution, then write the correct solution.

15. Use any strategy to determine each product.

a) $-3(-4u^2 + 16u + 8)$

b) $12(2m^2 - 3m)$

c) $(5t^2 + 2t)(-4)$

d) $(-6s^2 - 5s - 7)(-5)$

e) $4(-7y^2 + 3y - 9)$

f) $10(8n^2 - n - 6)$

22. Determine each product.

a) $2(2x^2 - 3xy + 7y^2)$

b) $-4(pq + 3p^2 + 3q^2)$

c) $(-2gh + 6h^2 - 3g^2 - 9g)(3)$

d) $5(-r^2 + 8rs - 3s^2 - 5s + 4r)$

e) $-2(4t^2 - 3v^2 + 19tv - 6v - t)$